Accidents Don't Happen
They are CAUSED

RULE 10-I

Oral authorization and acknowledgments between Foremen and Engineers for trains to pass "Red Conditional Stop" signs must be worded in the following forms:

NWP FOREMAN..... AT MP..... CALLING NWP (Train No.).....

(After train answers giving his identification): (i.e.) NWP Train.....

Foreman's Response

"THIS IS NWP FOREMAN.....IN CHARGE OF THE WORK BETWEEN MP.....AND MP.....NWP TRAIN ORDER NO..... WE ARE IN THE CLEAR AND YOU MAY PROCEED PAST THE RED CONDITIONAL SIGN AND THROUGH THE LIMITS OF ORDER AT ....MPH (REPEAT).....MPH."*

Engineer's Response

"THIS IS ENGINEER NWP TRAIN....I MAY PROCEED PAST THE RED CONDITIONAL STOP SIGN AND THROUGH THE LIMITS OF ORDER NO.... BETWEEN MP .... AND MP .... AT (Speed). REPEAT (Speed) MILES PER HOUR."

Foreman must acknowledge Engineer's response as follows: "NWP TRAIN ORDER NO....., BETWEEN MP..... AND MP..... .....MPH* OK."

*When no speed restriction account above Form "Y" Train Order, tell train engineer "At Maximum Authorized Speed."

SPEED TABLE

TIME PER MILE	MILES PER HOUR
1'11"	50.7
1'12"	50
1'13"	49.3
1'14"	48.6
1'15"	48
1'16"	47.4
1'17"	46.8
1'18"	46.2
1'19"	45.6
1'20"	45
1'25"	42.4
1'30"	40
1'35"	37.9
1'40"	36
1'45"	34.3
1'50"	32.7
1'55"	31.3
2'00"	30
2'15"	26.7
2'30"	24
2'45"	21.8
3'00"	20
3'30"	17.1
4'00"	15
5'00"	12
6'00"	10
7'00"	8.6
7'30"	8
8'00"	7.5
10'00"	6

NORTHWESTERN PACIFIC RAILROAD COMPANY

TIMETABLE

51

EFFECTIVE JANUARY 1, 1969

AT 12:01 A. M.

PACIFIC STANDARD TIME

FOR GOVERNMENT AND INFORMATION OF EMPLOYEES ONLY

C. E. NEAL,
Vice President and General Manager.

S. J. MACKIE,
Superintendent.

TRAINMASTERS

GERALD FOSTINE.....Santa Rosa
H. R. RUTLER.....Willits
H. B. FOWLER.....Eureka

TRAINMASTER ROAD FOREMAN OF ENGINES

J. D. LEWIS.....Willits

ASSISTANT TRAINMASTERS

W. K. MILLER.....Willits
M. P. FORD.....Eureka
R. E. RUEGAMER.....Santa Rosa

CHIEF TRAIN DISPATCHER

C. L. KENNEDY.....Roseville

EASTWARD Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES	Station Number	Distance from Willits	WESTWARD SECOND CLASS 81 Freight Arrive Daily	85 Freight Arrive Daily
11.4	MEADOWSWEET	24140	126.5		
12.7 / 14.3	DETOUR	24110	125.2		
17.0	TO-R Yard Limits SAN RAFAEL QBKYP	24105	122.5	Via Black Point	Via Black Point
24.9	IGNACIO YP	24050	114.6	AM 7.15	PM 7.15
27.8	NOVATO P	24205	111.7	7.10	7.10
31.3	6078 BURDELL P	24209	108.2	7.05	7.05
38.5	4354 Yd Lmts TO-R PETALUMA QKIP	24220	101.0	6.49	6.49
46.1	COTATI P	24251	93.4	6.36	6.36
53.8	5574 Yd Lmts TO-R SANTA ROSA QBKYP	24410	85.7	6.25	6.25
58.5	2022 FULTON P	24426	81.0	6.15	6.15
68.0	3638 Yd Lmts TO-R HEALDSBURG QBKTP	24441	71.5	6.03	6.03
75.8	6492 Yd Lmts GEYSERVILLE P	24454	63.7	5.48	5.48
81.3	ASTI P	24459	58.2	5.39	5.39
85.2	3024 TO CLOVERDALE P	24463	54.3	5.34	5.34
100.1	4262 HOPLAND P	24473	39.4	5.01	5.01
114.0	Yd Lmts TO-R UKIAH QBKP	24479	25.5	4.33	4.33
122.1	6993 Yd Lmts REDWOOD VALLEY P	24486	17.4	4.20	4.20
131.4	1222 RIDGE P	24493	8.1	3.35	3.35
139.5	Yd Lmts TO-R WILLITS QBKYP	24500	0.0	3.00 AM	3.00 PM
	126.5			Leave Daily	Leave Daily
				81	85

SCHELLVILLE BRANCH					81 Freight Arrive Daily	85 Freight Arrive Daily
44.8	R Yd. Lmts	SONOMA BP	24000	19.9	AM 8.05	PM 8.05
40.4	TO-R	SCHELLVILLE QBKYP	23740	15.5		
28.5		BLACK POINT IP	24043	3.6		
24.9	Yd Lmts	IGNACIO YP	24050	0.0	7.15 AM	7.15 PM
	19.9				Leave Daily	Leave Daily

SAUSALITO BRANCH					81	85
7.1		Yard Limits SAUSALITO	24130	7.2		
14.3		DETOUR	24110	0.0		
	7.2					

ADDITIONAL STATIONS

Capacity and Direction of Entry into Spurs		Mile Post	NAME	Station No.
385W		14.9	Greenbrae.....(Spur)	24109
661E		23.8	Hamilton Field....(Spur)	24055
2463		39.2	Park Siding.....	24241
460W		41.0	Crown.....(Spur)	24244
1126E	P	62.9	Windsor.....(Spur)	24432
407W		66.4	Grant.....(Spur)	24436
2159	P	71.9	Lytton.....	24450
221W		77.0	Omus.....(Spur)	24455
800E	P	120.0	Calpella.....	24484
502W	P	124.0	Laughlin.....(Spur)	24488
			Schellville Branch	
183E		42.3	Vineburg.....(Spur)	24008
188E		44.2	Sebastiani.....(Spur)	24003
			Sausalito Branch	
284W		11.0	Mill Valley.....(Spur)	24117

RULE 5. Time at Ignacio for trains to and from the Schellville Branch via Novato, applies at the east switch of the wye, MP 25.82.

NOTICE TO PUBLIC

Effective Sunday, March 22, 1970, train No. 3, "Redwood", will depart Eureka 9.05 AM instead of 10.05 AM, and arrive Willits 2.17 PM instead of 3.17 PM, Sunday, Wednesday and Friday. No change will be made with train No. 4 departing Willits 1.45 PM and arriving Eureka 7.00 PM Monday, Thursday and Saturday.

Revised schedule of No. 3 is as follows:

Eureka	Lv		9.05 AM
Loleta		f	
Fernbridge		f	9.33 AM
Fortuna		f	
Alton		f	9.42 AM
Stone		f	
Scotia		f	9.56 AM
Shively		f	10.14 AM
Larabee Ranch		f	
South Fork		f	10.29 AM
El Rock		f	
Fort Seward		s	11.11 AM
Alderpoint		f	11.28 AM
Kekawaka		f	
Island Mountain		s	12.04 PM
Ramsey		f	
Bell Springs		f	
Spyrock		f	
Nashmead		f	12.50 PM
Woodman		f	
Dos Rios		s	1.11 PM
Farley		f	1.32 PM
Longvale		f	1.45 PM
Outlet		f	2.06 PM
Willits		s	2.17 PM

Northwestern Pacific Railroad Company

EASTWARD FIRST CLASS 4 Redwood Leave Mon., Thurs. and Sat.	Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES	Station Number	Distance from Eureka	WESTWARD FIRST CLASS 3 Redwood Arrive Sun., Wed. and Fri.	WESTWARD SECOND CLASS 75 Freight Arrive Daily
PM 1.45	139.5	Yd Lmts TO-R WILLITS QBKYP	24500	144.6	s 3.17	PM 9.32
f 1.54	143.7	OUTLET	24524	140.4	f 3.06	9.21
f 2.15	152.5	6501 LONGVALE	24533	131.6	f 2.45	8.58
f 2.28	158.1	2342 FARLEY	24538	126.0	f 2.32	8.44
f 2.49	166.5	DOS RIOS	24547	117.6	f 2.11	8.22
f 3.10	175.5	1050 NASHMEAD	24557	108.6	f 1.50	8.01
f 3.21	180.0	SPYROCK	24561	104.1	f 1.39	7.49
f 3.31	184.3	BELL SPRINGS	24565	99.8	f 1.29	7.38
f 3.43	189.3	RAMSEY	24571	94.8	f 1.17	7.25
s 3.56	194.5	Yd Lmts ISLAND MOUNTAIN QP	24607	89.6	s 1.04	7.12
f 4.11	200.3	KEKAWAKA	24613	83.8	f12.49	6.54
f 4.32	209.0	ALDERPOINT	24623	75.1	f12.28	6.32
s 4.50	216.6	4590 Yd Lmts TO-R FORT SEWARD QP	24632	67.5	PM s12.11	6.14
f 5.09	225.1	EEL ROCK	24643	59.0	AM f11.51	5.55
f 5.32	237.3	2939 SOUTH FORK	24705	46.8	f11.29	5.32
5.40	241.7	LARABEE	24712	42.4	11.21	5.23
f 5.47	245.6	SHIVELY	24718	38.5	f11.14	5.15
f 6.06	255.6	3628 Yd Lmts TO-R SCOTIA QBKP	24729	28.5	f10.56	4.57
f 6.20	262.7	1613 R ALTON	24740	21.4	f10.42	4.43
	264.5	3893 ROHNERVILLE	24805	19.6		
f	266.1	1148 FORTUNA	24810	18.0	f	
f 6.28	268.7	1800 FERNBRIDGE	24815	15.4	f10.33	4.33
6.41	277.8	3890 SOUTH BAY	24831	6.3	10.20	4.19
6.48	282.0	Yd Lmts BUCKSPORT	24835	2.1		
s 7.00 PM	284.1	TO-R EUREKA QBKDTYP	24840	0.0	10.05 AM	4.04 PM
Arrive Mon., Thurs. and Sat.		144.6			Leave Sun., Wed. and Fri.	Leave Daily
4					3	75

EASTWARD Mile Post Location	KORBLEX BRANCH STATIONS SIDING CAPACITIES AND FACILITIES	Station Number	WESTWARD Distance
284.1	TO-R EUREKA QBKDTYP	24840	11.1
292.5	Yard Limits ARCATA Y	24920	2.7
295.2	848 KORBLEX	24930	0.0
	11.1		

SAMOA BRANCH

292.5	Yard Limits 2468 ARCATA Y	24920	8.0
300.5	SAMOA	24950	0.0
	8.0		

CARLOTTA BRANCH

262.7	1613 R ALTON	24740	5.0
267.7	CARLOTTA	24745	0.0
	5.0		

ADDITIONAL STATIONS

Capacity and Direction of Entry Into Spurs	Mile Post	NAME	Station No.
254W	171.1	*Woodman.....(Spur)	24551
..	242.4	*Larabee Ranch.....	24714
..	253.8	Glynn.....	24727
..	256.1	Yoder.....	24731
..	259.0	*Stone.....	24737
440W	271.0	*Loleta.....	24818
		Korblex Branch	
..	291.0	Gannon.....	24914
		Samoa Branch	
..	297.5	Manila.....	24940

*Flag stop for Nos. 3 and 4.

RULE 5. Time at Willits for No. 3 and No. 4 will apply at MP 140.0.
Time at Eureka for No. 3, No. 4 and No. 75 will apply at the west switch to train yard, MP 282.1.
RULE 93. No. 3 and No. 4 will use coach and house track at Willits.
No. 3 and No. 4 will use Balloon lead track at Eureka.

Schedule of No. 3 revised 3-22-70 to operate 1:00" earlier.

RULE A. Employes must know they have in their possession copy of Rules and Regulations of the Transporation Department effective January 1, 1969.

RULES 10-G, 10-H and 10-I. When unattended red flags or red lights, yellow signals, red CONDITIONAL STOP signs and yellow PROCEED PREPARED TO STOP signs are displayed between siding switches, they must be duplicated to right of siding in direction of approach. If clearance between siding and main track does not permit display of these signals to right of track in direction of approach, signals may be displayed to left of track in direction of approach. Display of these signals to the left of track in direction of approach must be respected as though they were displayed in accordance with these rules.

RULES 10-H, 10-I, 15 and FORM Y train orders are revised to read:
One and one-half (1½) miles where two (2) miles are shown.

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction.

RULE S-90-A is revised to read:
One (1) mile where two (2) miles is shown.

RULE 103-A.

Willits: Flashing light signals at Commercial Street crossing are not actuated for movements over Track 2 or House Track until equipment is within fifty (50) feet of crossing. Trains and engines using Track 2 or House Track must not proceed over crossing until flashing light signals are operating. Equipment must not be left standing on these tracks within one hundred (100) feet of the crossing.

A member of the crew must afford protection to traffic while movement is being made over Highway 101 crossing on wye track at Willits.

RULE 105. Capacity of sidings column indicate length of train in feet that can be accommodated between fouling points.

RULE 206. Second paragraph will not apply to Southern Pacific engines.

GENERAL REGULATIONS

RULE 811. The crew must eat as a unit, and conductor will notify train dispatcher in advance where they intend to do so.

RULE 825. At Willits train crews must not release hand brakes until engine is coupled and brake pipe is charged.

RULE 827. On freight trains a member of the crew must frequently observe track to rear of train for evidence of derailment or any other condition requiring immediate stopping of train.

When trains stop through emergency brake application between Redwood Valley and Willits a member of the train crew must inspect the train before departing to determine whether or not cars are derailed.

Engines on descending grade without dynamic brake in operation must stop a sufficient length of time to permit wheel heat radiation if there is indication of overheating. Stop need not be made if, in the judgment of engineer, it is safe to proceed.

RULE 872. Enginemen taking charge of engines at Eureka, Willits and Schellville will consider engines as having been amply supplied with fuel, sand and equipped with prescribed signals, tools, supplies and flagging equipment in serviceable condition.

MISCELLANEOUS

Forward brakeman in freight service will ride the lead diesel unit unless otherwise instructed by conductor or engineer.

MAXIMUM CAR LOADINGS

Load limit (car and contents) must not exceed 240,000 pounds except load limit on wharf Samoa Yard must not exceed 169,000 pounds.

Unless authorized by chief train dispatcher, heavier loads must not be handled.

NWPMW–42, relief crane, weighs 230,840 pounds
NWPMW–43, relief crane, weighs 222,700 pounds

When handling 20,000 gallon loaded wine tank cars which have a gross weight of over 230,000 pounds, an empty car, or a load which does not exceed 199,000 pounds, must be handled immediately ahead of and immediately to the rear of each of these cars.

RULE 958. Is revised to read:
NWP where SP is shown.

Maximum Speed for Engines

Classification	Maximum Speed Except (*)	Length (feet)
AF420-1	70	57
AF624C-1	75	67
AF624-1	70	67
AF628-1, 2	70	70
AF630-1	70	70
AF640-1	70	59
EF415C-1	70	56
EF415-4 to 9, 11	70	51
EF415AC-1, 2, 3	70	51
EF415BC-1, 2, 3	70	50
EF415B-4 to 7, 9, 11, 13	70	50
EF418A-1	70	51
EF418B-1	70	50
EF418-1 to 9	70	56
EF418C-1, 2	70	56
EF618-1 to 5	70	61
EF420C-1	75	56
EF20C-1, 2	70	56
EF420-1, 2	70	56
EF423C-1	70	56
EF423-1	70	56
EF425C-1, 2, 3	70	56
EF425-1, 2, 3, 4	70	56
EF625-1	70	61
EF430C-1	70	59
EF630-1, 2	70	66
EF636-1, 2, 3, 4	70	66
EF636C-1, 2	70	66
BF850B-1	70	88
GF425-1, 2, 3	70	60
GF428-1	70	60
GF628-1	70	67
GF630-1	70	67
GF850-1	70	84
BS4102-1, 2	65	44
BS410-1	60	44
BS410-2	65	44
ES4120-1 to 5	65	44
ES412-1 to 5	65	44
EF623-1	70	66
ES415-1, 2	65	45
ES415C-1, 2	65	45
ES615-1, 4	55	61
KF636A-1	70	66
KF636-1	70	68
KF415A-1 to 4	79	51
EP415A-5	79	55
EP415AC-1	70	55
EP415B-1, 2, 3	79	50
EP418-1 to 4	79	56
EP418-5	70	56
EP620B-1, 2	79	70
EP620A-2	79	71
EP624A-1	79	70
EP636-1	70	71
FP624-1, 2	70	66

Maximum Speed for Engines

Classification	Maximum Speed Except (*)	Length (feet)
AS407-1	60	44
AS409-1 to 5	60	45
AS410-2 to 5	60	45
AS410-6	60	46
AS415-1	65	54
AS416C-1, 2, 3	75	57
AS416C-4, 5	65	57
AS616-1, 2	65	56
AS616-3, 4	65	56
AS616-5	65	56
AS616C-1	65	56
AS418-1 to 6	70	57
AS618-1	70	58
BS410-2	60	49
BS410-4	60	49
BS410-4	60	46
BS412-1 to 4	60	46
BS615B-1	35*	58
BS615-2 to 5	35*	58
BS616-2, 3	35	58
BS616-5, 6	35*	58
ES406-2, 3	45	44
ES408-1 to 4	65	44
ES408B-1	65	44
ES409-1, 2	65	44
ES409-1, 2	65	44
ES615-1 to 4	70	61
ES412-1, 2, 3	60	49
FS412-4, 5	60	46
GS407-1, 6	55	37
RDC	79	74
Any locomotive not listed	35	..

When operated in multiple unit control, on head end of train or running light and engineer is in other than the leading control cab in direction of movement, speed must not exceed 30 MPH. "A" type units (indicated by letter "A" following classification numerals) operating in reverse as lead unit in direction of movement must not exceed 30 MPH and must not exceed 20 MPH when approaching highway or street crossing at grade, subject to further restrictions imposed by local conditions.

*Speed must not exceed 25 MPH on less than 90 lb. rails.

OTHER SPEED RESTRICTIONS

Trains handling relief cranes NWP MW-42 or NWP MW-43 must not exceed 35 MPH.

Trains handling shovels, ditchers, cranes, except NWP MW-42 and NWP MW-43, pile drivers and derricks on own wheels must not exceed 25 MPH.

Facing point movements over spring switches must not exceed 35 MPH for passenger trains and 30 MPH for freight trains.

Dead or disabled engines which requires movement at reduced speed must first be reported as ready to move to the chief train dispatcher, who will designate the train in which the engine is to be moved. Any such engine must not be handled in train until train order designating maximum speed is issued.

Dead engines hauled in train and weighing 100,000 pounds or more must be placed first behind the engine handling the train. If weight is less than 100,000 pounds, dead engines must be placed near rear of train.

Trains handling SPMW-2639, Scale Test Car must not exceed 40 MPH on main track other than Branches and 30 MPH on main track on Branches.

AIR BRAKE RULE

RULE 2B. Dynamic brake on head end of freight and mixed trains must not exceed three 8-axle units, four 6-axle units, six 4-axle units, or any combination thereof which totals 24 axles, except dynamic brake on EF415A&B and EP415A&B classes is limited to five units.

Dynamic brake must not be used when operating in multiple with engines other than SP or SSW units unless equipped with dynamic brake interlocks.

RULE 3. Engineer will reduce feed valve to not over 80 lbs. when handling rear of train during switching movements, when cutting helpers in or out and to assist in the charging of train line. Feed valve will be returned to 90 lbs. when work is completed and/or brake valve is cut out.

A full independent brake application on road locomotives, classes EP636, GE628, GF630, GF633, EF623, EF630, EF636, EF8508 results in a brake cylinder pressure of 72 PSI. This brake cylinder pressure must be maintained to provide required braking power at very low speeds or when stopped. Under no circumstances must self-lapping portion of independent brake valve be changed except to obtain brake cylinder pressure of 72 PSI from a full independent brake application.

RULE 11. Cars equipped with brake cylinder release valve may have one or two operating release rods. Operating rods connected to brake cylinder release valve may be identified by stencil reading "Br.Cyl.Rel.", or by a diamond shaped stencil or by noting that ends of release rod form a small closed circle.

Air brakes can be released on cars equipped with brake cylinder release valve by a hard momentary pull on release rod after brake pipe pressure has been depleted.

RULE 17. If at any time in engineer's judgment use of retaining valves is required, stop will be made and retaining valves turned up in accordance with his request.

RULE 23. The following series of cars are equipped with ABEL brake system which has automatic change-over feature to provide proper function when car is loaded and when empty:

SSW	75700– 75799	Gondolas
SSW	78500– 78599	Hoppers (Open Top)
SP	333500–334399	Gondolas
SP	337500–337599	Gondolas
SP	345000–345669	Gondolas
SP	354000–354399	Gondolas
SP	463500–463999	Hoppers (Open Top)
SP	467500–467549	Hoppers (Open Top)
SP	480000–480193	Hoppers (Open Top)
SP	491000–491059	Hoppers (Covered)
SP	492000–492039	Hoppers (Covered) .
SP	500604	Flat Cars
SP	590000–590099	Flat Cars

Before leaving a station or point where such cars have been added to the consist, engineer must actuate the automatic change-over feature by reducing brake pipe pressure to below 20 pounds whether cars are loaded or empty.

MISCELLANEOUS

Helper Service:

(a) When helper engine is placed behind caboose not more than two operating units or 4000 operative horsepower will be used.

(b) When helper engine is placed immediately ahead of caboose a combination of not more than 18 axles will be used.

(c) Helper engines consisting of more than 12 axles must not be placed directly behind 80 ft. or longer trailer flat cars.

(d) When helper engine is placed directly ahead of caboose, additional helpers must not be coupled behind caboose. Helper engines must be separated by at least 20 cars.

(e) Air will be cut in on all helper engines, and engines must not be coupled or uncoupled while train is in motion.

(f) When helper engine is shoving on ascending grade, throttle must be reduced as train speed reduces, then throttle regulated so that amperage will be approximately the same as indicated before train speed reduction.

RULE 10-J. Speed signs to left of track:

Eastward	Reading
MP 121.40	25

Westward	Reading
MP 139.20	40
MP 37.95	10

RULE 83-A. At the following stations only trains indicated will register:

Petaluma.....Trains originating and terminating.
Santa Rosa.....Trains originating and terminating.
Healdsburg.....Trains originating and terminating.
Ukiah.....Trains originating and terminating.

RULE 93. Yard limits are established at the following stations:

West MP		East MP
6.84	Sausalito (Sausalito Branch)	
11.00	Meadowsweet	27.05
26.80	Ignacio (Schellville Branch)	
44.95	Schellville	38.25
36.38	Petaluma	40.30
52.36	Santa Rosa	55.66
65.65	Healdsburg	69.71
74.52	Geyserville	78.39
110.84	Ukiah	116.10
120.21	Redwood Valley	122.39
137.90	Willits	141.40

RULE 98. Railroad crossings at grade not interlocked:

Petaluma.....P&SRRR crossing of yard tracks — STOP. Flag protection must be provided.

RULE 99-C. Will apply on Schellville Branch and between Willits and Redwood Valley.

RULE 103-A. Following crossings protected by gates with controlled circuits located within short distance of crossing other than on main track. Before making movements over these crossings, from other than main track, it must be known that gates are down or protection to traffic must be provided while movement is being made.

Station	Location	Mile Post
Schellville	Highway 121	40.4
*Santa Rosa	Third Street	53.7
**Ukiah	Perkins Street	114.0
Redwood Valley	School Way	121.1

*May be operated for movements from other than main track by operating key release on side of instrument case on east side of crossing and on relay post on west side of crossing.

**May be operated for movement over Lucas track by operating key release on relay post on west side of crossing.

Switch key may be removed but circuit must be occupied within one minute or gate will rise.

San Rafael:

Pedestrain crosswalk located at Los Gallinas Avenue, MP 19.3, must not be blocked by standing trains or cars.

Hamilton Field: Switching movements at Hamilton Air Force Base under jurisdiction of Air Force representative. Engines must not pass engine restriction sign without permission from Air Force representative.

Petaluma: Should automatic warning devices be inoperative at East D St., or Washington St., a member of the crew must afford protection to traffic over these crossings.

Switching movements over the following crossings must not be made until a member of the crew has afforded protection to traffic.

East D St.
Washington St.

Uncontrolled movement of cars over these crossings prohibited.

Santa Rosa:

Wigwags at 6th, 7th and 8th Street crossings operate only when movements are made on main track and siding. Wigwag at 9th Street crossing operates only when movements are made on main track.

When movements over these crossings are made from other tracks and wigwags are not operating, movement must not be made until protection to traffic has been provided.

RULE 104. Normal positions of switches at west end of Schellville are from track No. 1 through east crossover to main track, and from main track to east leg of wye.

Normal position of east wye switch at Ignacio, MP 25.82, is for Schellville Branch.

RULE 105. At the following stations, sidings are located as shown below:

SANTA ROSA. On east side of main track, from East Switch MP 54.97, to MP 53.85 (10 feet east of Sixth St.)

HEALDSBURG. On east side of main track, from east switch MP-67.40 (10 feet west of Bailhache Ave.) to west switch.

RULE 221. Unit for display of flashing light installed at the following locations:

Station	Location	Direction
Petaluma	East end siding	Eastward trains
Santa Rosa	MP53.95	Westward trains
Healdsburg	West end siding	Eastward trains

Display of flashing white light indicates that train-order signal is displaying proceed indication or that train-order operator has train orders ready for delivery and such train orders do not restrict train at that station and train may pass fouling point of siding if not restricted by timetable or train orders previously received.

No. 81 and No. 85 are not required to obtain clearance at Schellville.

Train register in the Bridgetender's House at Petaluma for use of trains receiving train order to register at that point.

RULE 535. SPRING SWITCHES

Spring switches not equipped with facing point locks are located as follows:

Location		Normal Position
Geyserville	East switch	Main track
Redwood Valley	East switch	Main track

Switch point indicator, indicating position of switch for facing point movement at above locations, are located from 25 to 100 feet in approach to switch.

GENERAL REGULATIONS

RULE 827. Westward trains departing Willits must not exceed 12 MPH until rear of train has passed over Commercial Street crossing.

RULE 884: When setting out units at Redwood Valley arrange to leave sufficient room on the west end of the siding to hold at least six (6) units.

AIR BRAKE RULES

RULE 13. When train consist exceeds 80 tons per operative brake and dynamic brake fails on road engines in retainer valve territory, train must be stopped with full service brake pipe reduction. Retainers must be set on all loaded cars after which recharge will be made as prescribed by Air Brake Rule 19. After complete oral understanding with helper engineer, road engineer will make a brake pipe reduction not exceeding six pounds with pressure maintaining. Helper engines will start train, road engineer assisting if necessary, holding light brake cylinder pressure on engine brakes. Immediately after starting, helper engineer will place transition lever in maximum dynamic range and vary speed of train not to exceed twelve miles per hour, road engineer to make any further brake pipe reductions necessary.

If dynamic brake fails on rear helper engines, train may proceed without stopping provided speed can be controlled within authorized limits.

Dynamic failure on all units of a consist exceeding 80 tons per operative brake between Ridge and Laughlin requires that train, after stopping, turn up all retainers, recharge to safe level and proceed not to exceed 10 MPH.

RULE 14. Dynamic brake will be used on descending grade by helper engines placed at or near rear of freight train unless relieved of the requirement by road engineer.

RULE 17. Retaining valves must be used on freight and mixed trains on descending grades as follows:

Redwood Valley to Willits
Willits to Redwood Valley

Without dynamic brake in operation:

One retaining valve for each 80 tons in train. If gross tonnage exceeds 80 tons per operative brake, retaining valves must be used on all cars and speed must not exceed 10 MPH.

With dynamic brake in operation:

Permissible Tons Per Unit
Without Retaining Valves*

	Basic Dynamic Brake 4-Axle	Basic Dynamic Brake 6-Axle
With dynamic brake in operation but **without** pressure maintaining system of braking:		
Redwood Valley to Willits	525	800
Willits to Redwood Valley	375	550

	Extended Range Dynamic Brake 4-Axle	6-Axle	8-Axle
With dynamic brake in operation but **without** pressure maintaining system of braking:			
Redwood Valley to Willits	675	1000	1325
Willits to Redwood Valley	450	675	900

	Basic Dynamic Brake 4-Axle	6-Axle
With dynamic brake in operation but **with** pressure maintaining system of braking:		
Redwood Valley to Willits	1600	2400
Willits to Redwood Valley	800	1200

	Extended Range Dynamic Brake 4-Axle	6-Axle	8-Axle
With dynamic brake in operation but **with** pressure maintaining system of braking:			
Redwood Valley to Willits	2000	3000	4000
Willits to Redwood Valley	1000	1500	2000

If permissible tonnage is exceeded, one retaining valve must be used for each 150 tons in excess thereof.

*If any unit having basic dynamic brake is operated with units having extending range dynamic brake, all units in consist must use tonnage authorized for units having basic dynamic brake.

Locomotive classes AF628, AF630, EF425, EF623, EF625, EF630, EF636, GF425 (except series 6700–6727), GF628, GF630, GF633, EF850B and GF850 are equipped with extended range dynamic brake.

Use of pressure maintaining brake valve will not dispense with the use of retaining valves when stop is made on descending grade between Ridge and Laughlin, and it must be known that all retaining valves are turned up before attempting release of air brakes.

RULE 33. Redwood Valley-Willits:

Maximum tonnage per operative brake——80 tons except with dynamic brake and pressure maintaining system of braking in operation with not more than 15 cars for each six axles of dynamic brake with speed not exceeding 15 MPH and with all retaining valves on loaded cars in high pressure position.....110 ton

Should dynamic brake failure occur while handling in excess of 80 tons per operative brake train may proceed at speed not exceeding 10 MPH if in judgment of conductor and engineer it is safe to do so and provided retaining valves are used as prescribed by Air Brake Rule 17.

HELPERS

WILLITS AND REDWOOD VALLEY

Unless otherwise instructed helper engines will be left in train between Willits and Redwood Valley and will be placed as follows:

WESTWARD TRAINS:

On trains handled by 1-2 or 3 unit road engines..One, two or three units ahead of caboose.

Power to be balanced when practicable with concentration of horsepower on head end.

On trains exceeding 6000 tons four unit road engines.....Three helper units ahead of caboose.

On trains exceeding 6700 tons four unit road engines.....Four helper units placed approximately 1900 tons ahead of caboose.

On trains exceeding 7700 tons four unit road engines.....Five helper units placed approximately 2400 tons ahead of caboose.

On trains exceeding 8500 tons four unit road engine.....Six helper units placed approximately 2800 tons ahead of caboose.

On trains exceeding 9300 tons instructions as to placement of power must be obtained from proper authority.

EASTWARD TRAINS:

On trains not exceeding 2100 tons or 60 cars....Ahead of road engine.

On trains exceeding 2100 tons or 60 cars....Not more than two helper units placed ahead of caboose.

On trains exceeding 2800 tons or 85 cars helper unit will be cut in not less than 24 cars ahead of caboose up to three units. 10 cars will be placed behind helpers for each additional unit used.

Unit of power refers to ES-615 and EF-618 class of engine or equivalent.

Westward trains departing Willits must have empties placed either behind or at least 10 cars ahead of helpers when three or more units are employed on rear of train. When practicable, empties and light loads on the head end of westward trains employing three or more units of dynamic on road engines should be cut back behind ten loads.

After starting freight trains at Willits and Redwood Valley, helper engineer at rear of train will reduce throttle sufficiently to allow road engineer to stretch entire train. Helper engineer will then bunch the slack in a manner to avoid objectionable run in.

FREIGHT TRAINS

When helper engines are not employed in trains ascending grade from Willits or Redwood Valley tonnage will be reduced for eastward trains 150 tons per unit to and including four units and 200 tons per unit over four units, for westward trains 200 tons per unit to and including four units and 300 tons per unit over four units.

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES and OTHER SPEED RESTRICTIONS appearing on pages 4 and 5 of Special Instructions for All Divisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by time-table bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY MP	MP	
EASTWARD, MEADOWSWEET TO WILLITS:		
11.00 to	19.50	20
19.50 to	36.85	45
36.85 to	37.20 (bridge)	10
37.20 to	39.25 (Petaluma)	20
39.25 to	53.00	45
53.00 to	55.00 (Santa Rosa)	25
55.00 to	67.60	45
67.60 to	68.58 (Healdsburg)	25
68.58 to	70.91	45
70.91 to	71.16	40
71.16 to	85.53	45
85.53 to	89.25	30
89.25 to	94.99	25
94.99 to	108.72	30
108.72 to	113.50	45
113.50 to	114.54	25
114.54 to	118.28	45
118.28 to	119.60	30
119.60 to	122.15	45
122.15 to	124.07	25
%124.07 to	136.35	15
136.35 to	139.20	40
139.20 to	139.50	20
EASTWARD, SONOMA TO IGNACIO		
44.95 to	43.00 (Sonoma)	15
43.00 to	40.39 (Sonoma)	25
40.39 to	32.30	30
32.30 to	29.01	45
29.01 to	28.74 (bridge)	10
28.74 to	25.80	45
25.80 to	24.99 (Ignacio)	25
EASTWARD, SAUSALITO TO DETOUR:		
6.84 to	11.69	20
11.69 to	12.10 (tunnel)	10
12.10 to	14.30	20

TERRITORY MP	MP	
WESTWARD, WILLITS TO MEADOWSWEET		
139.50 to	139.20	20
139.20 to	136.35	40
%136.35 to	124.07	15
124.07 to	122.15	20
122.15 to	119.60	45
119.60 to	118.28	30
118.28 to	114.54	45
114.54 to	113.50	25
113.50 to	108.72	45
108.72 to	94.99	30
94.99 to	89.25	25
89.25 to	85.53	30
85.53 to	71.16	45
71.16 to	70.91	40
70.91 to	68.58	45
68.58 to	67.60 (Healdsburg)	25
67.60 to	55.00	45
55.00 to	53.00 (Santa Rosa)	25
53.00 to	39.25	45
39.25 to	37.20 (Petaluma)	20
37.20 to	36.85 (bridge)	10
36.85 to	19.50	45
19.50 to	11.00	20
WESTWARD, IGNACIO TO SONOMA		
24.99 to	25.80 (Ignacio)	25
25.80 to	28.74	45
28.74 to	29.01 (bridge)	10
29.01 to	32.30	45
32.30 to	40.39	30
40.39 to	43.00 (Sonoma)	25
43.00 to	44.95 (Sonoma)	15
WESTWARD, DETOUR TO SAUSALITO:		
14.30 to	12.10	20
12.10 to	11.69 (tunnel)	10
11.69 to	6.84	20

%Passenger Trains, Light Engines and trains handling passenger equipment only; 20 MPH between MP 124.07—136.35.
Trains must approach and cross Wingo bridge with caution, watching carefully for pedestrians and vehicles.
Speed to and from Ignacio through switch on main track leading to east leg of wye must not exceed 10 MPH.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With caution Not Exceeding MPH
Through Sidings, yards and other tracks, ballon tracks, crossovers and turnouts, except:	15
Through turnouts on other than sidings	10
Wye tracks, except	10
East Leg Ignacio Wye	25

SP 354000–354199 series wood chip cars exceed clearances east of Cloverdale and must not be moved beyond that point. Trains handling loaded cars in above series, must reduce speed of train not exceeding 10 MPH over Healdsburg bridge, MP 67.62. On all movements, cars must be separated at least five cars from engine or caboose, train length permitting.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK, SIDINGS AND SPURS

Mile Post	At or Near	Description	Side or Overhead
37.8		Wingo bridge	Side
28.5	Black Point	Drawbridge	Side
37.2	Petaluma	Drawbridge	Overhead and side
53.8	Santa Rosa	Cement Shed of Mead Clark Lumber Co.	Side
68.0	Healdsburg	Steel bridge over Russian River	Side

RULE 10-J. Speed signs to left of track:

Westward	Reading
MP 255.70	45

RULE 82-A. Extra trains are authorized to operate as extra trains between Alton and Carlotta without train order authority and without obtaining clearance at Alton.

RULE 83-A. At the following stations only trains indicated will register:

Fort Seward.....Trains originating and terminating.
Scotia.....Trains originating and terminating.

Alton.....Nos. 3, 4 and extra trains departing Alton on Carlotta Branch.

In addition to information required by train register, extra trains must register destination of trip (turning point) and date of departure in the column captioned "Signals". When trip has been completed, date of arrival at Alton must also be entered in column captioned "Signals" in the same manner.

When engine is changed before completion of a trip, crew must indicate on train register that trip was originated with Engine No. .. and completed with Engine No. ...

An extra train enroute Alton to Carlotta or any intermediate point must not leave Alton until it has been ascertained from the train register that all preceding extra trains have completed their trip and registered time and date of arrival at Alton accordingly.

RULE 93. Yard limits are established at the following stations:

West MP		East MP
137.90	Willits	141.40
193.94	Island Mountain	195.62
214.25	Fort Seward	218.50
280.56	Eureka (Korblex Branch)	End of NWP Track
"	(Samoa Branch)	End of NWP Track

RULE 99. Flag protection to the rear is not required between Alton and Carlotta.

RULE 99-C. Will apply between Eureka and Willits.

RULE 104. Normal position of junction switch of Carlotta Branch at Alton is for siding.

Normal position of junction switch at Carlotta is for The Pacific Lumber Co. track.

RULE 105. At the following station, sidings are located as shown below:

FORT SEWARD. On east side of main track, from west switch MP-216.33 to east switch.

GENERAL REGULATIONS

RULE 827. Trains handling logs not loaded in gondolas should not be in motion on tracks adjacent to main track when passenger trains are passing. If necessary to saw-by, passenger train must remain standing until caboose is clear of main track and train with logs has stopped.

LIGHT TYPE INDICATORS

Light type indicators are installed on the Scotia Bluff at MP 256.85 and MP 257.49. Lunar light indicates proceed, and yellow aspect indicates proceed at reduce speed not to exceed 4 MPH over the trestle.

The protective equipment is so designed as to cause the indicators to assume restrictive position if any of the bents should be disturbed by falling rocks or high water.

Trainmen and enginemen must closely observe trestle to determine if any of the bents have been displaced or damaged.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK, SIDINGS AND SPURS

Mile Post	At or Near	Description	Side or Overhead
284.1	Eureka	Simpson Plywood, track into building	Overhead and side
284.1	Eureka	Halvorsen Lbr. Co. No. 2	Side
284.1	Eureka	Shell Oil Co., spur	Side
300.5	Samoa	Georgia-Pacific Co., warehouse No. 14	Overhead

MISCELLANEOUS

Engines listed must not operate on tracks shown below:

Class of Engine		Restricted Tracks
All engines	Firco	Beyond engine restriction sign placed 100 feet east of derail.
All engines except ES408 or ES409 series	South Bay	Beyond engine restriction sign placed 547 feet from point of switch on PG&E Spur.
All engines except ES408 or ES409 series	Samoa	Beyond engine restriction sign placed 100 feet from end of long track serving warehouse No. 14, Georgia-Pacific Co.

TPL Co. engines permitted to operate on NWP tracks between Rohnerville and South Fork and Alton and Carlotta.

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All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY		
MP	MP	
EASTWARD, WILLITS TO EUREKA:		
139.50	141.40	20
141.40	143.10	40
143.10	144.65	30
144.65	213.08	25
213.08	222.15	30
222.15	228.13	25
228.13	231.02	30
231.02	237.74	40
237.74	240.21	30
240.21	242.80	45
242.80	246.85	30
246.85	247.20	25
247.20	252.46	30
252.46	255.70	45
255.70	257.00	35
257.00	258.08 (Scotia Bluff)	20
258.08	262.50	40
262.50	262.70	35
262.70	266.00	45
266.00	267.60	40
267.60	270.60	45
270.60	273.34	35
273.34	277.05	45
277.05	277.55	40
277.55	282.00	45
282.00	283.14	20
283.14	284.10 (Eureka)	10
EASTWARD, EUREKA TO KORBLEX		
284.10	285.80 (Eureka)	10
285.80	292.10	25
292.10	292.23	10
292.23	295.57	20
EASTWARD, ARCATA TO SAMOA		25
EASTWARD, ALTON TO CARLOTTA		25

TERRITORY		
MP	MP	
WESTWARD, EUREKA TO WILLITS:		
284.10	283.14 (Eureka)	10
283.14	282.00	20
282.00	277.55	45
277.55	277.05	40
277.05	273.34	45
273.34	270.60	35
270.60	267.60	45
267.60	266.00	40
266.00	262.70	45
262.70	262.50	35
262.50	258.08	40
258.08	257.00 (Scotia Bluff)	20
257.00	255.70	35
255.70	252.46	45
252.46	247.20	30
247.20	246.85	25
246.85	242.80	30
242.80	240.21	45
240.21	237.74	30
237.74	231.02	40
231.02	228.13	30
228.13	222.15	25
222.15	213.08	30
213.08	144.65	25
144.65	143.10	30
143.10	140.87	40
140.87	139.50	20
WESTWARD, KORBLEX TO EUREKA		
295.57	292.23	20
292.23	292.10	10
292.10	285.80	25
285.80	284.10 (Eureka)	10
WESTWARD, SAMOA TO ARCATA		25
WESTWARD, CARLOTTA TO ALTON		25

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With caution Not Exceeding MPH
Through sidings, yard and other tracks, balloon tracks, crossovers and turnouts, except:	15
Through turnouts on other than sidings	10
Wye tracks	10